THE MENTOR

June 1922

Spruce Tree House, Mesa Verde, Across the Canyon

MESA VERDE CLIFF DWELLERS

By Ronne C. Shelsé

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The Mentor

THE MENTOR

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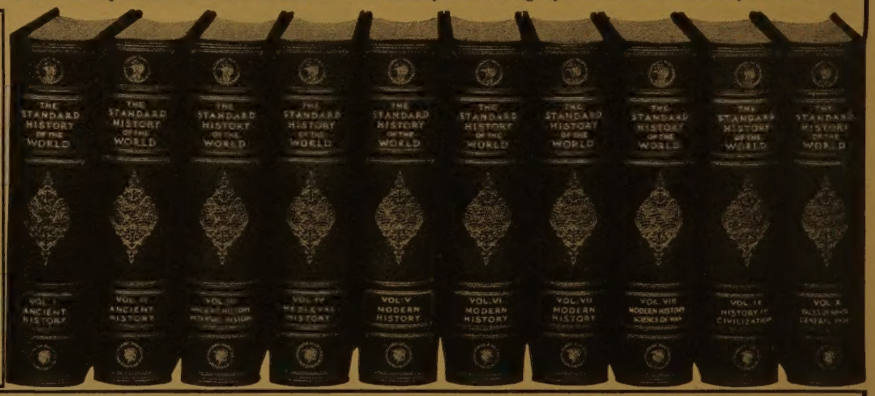

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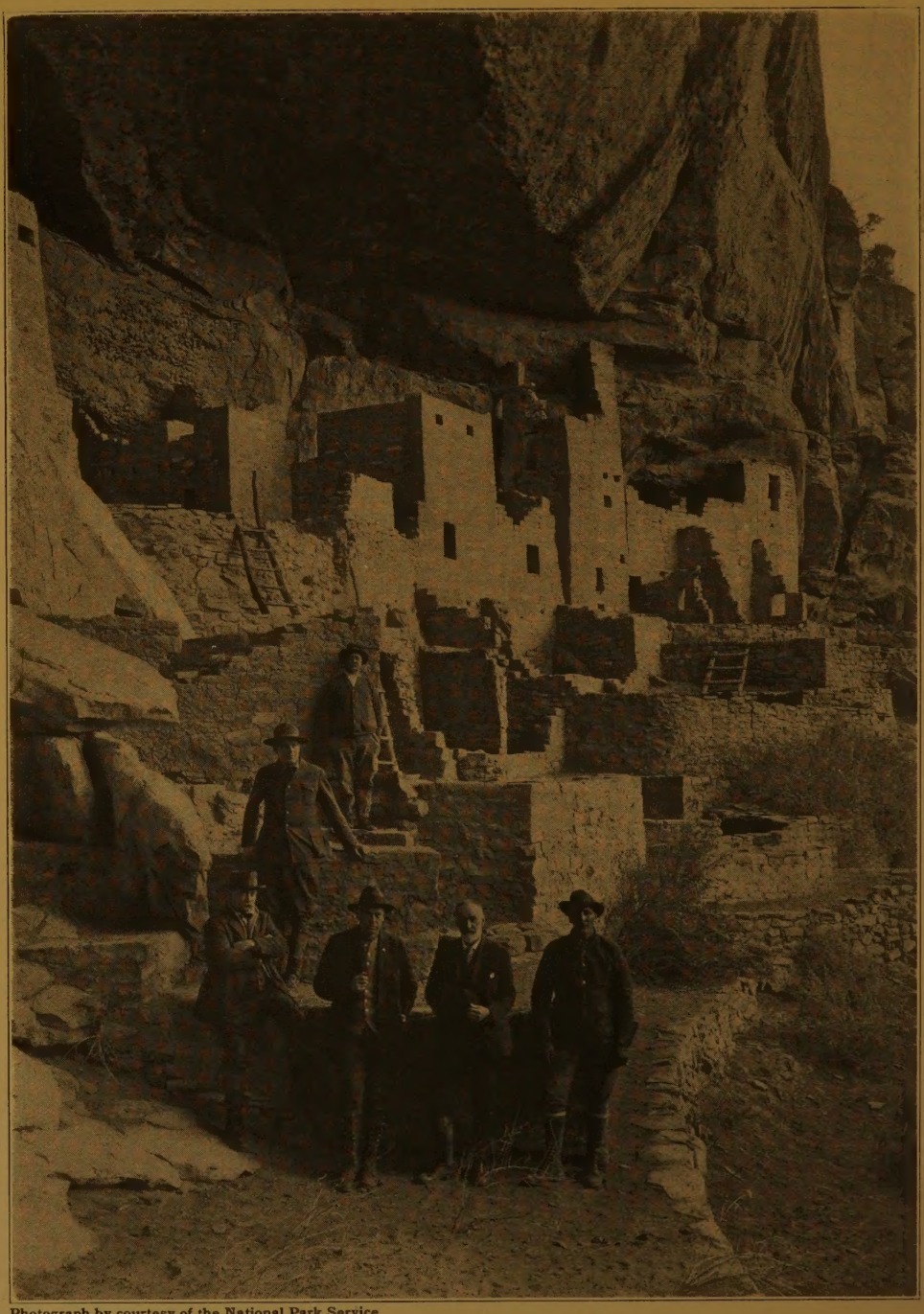

Photograph by courtesy of the National Park Service

Scene at Cliff Palace

The four front figures of the group are, from left to right: F. A. Wadleigh, Denver and Rio Grande R. R. manager, Stephen T. Mather, director of the National Park Service, Dr. Walter Fewkes, Smithsonian Institution, Washington, and a park ranger

THE MENTOR

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MESA VERDE CLIFF DWELLERS

By RONNE C. SHELSÉ

Of the United States Geological Survey

BACK in the late 80's two plainsmen sped their horses across the tablelands of southwestern Colorado in quest of cattle strayed from the herd. Suddenly they drew rein at the edge of a gaping canyon and from under their broad sombreros peered intently at the opposite cliff. What fantasy was this; or was it fantasy? There under a huge vault of rock were the ruins of an ancient civilization—remnants of strange walls and towers rising out of a heap of tumbled stones.

Roaming beasts and supper calls were forgotten in astonishment, for Richard and Alfred Wetherill, cattlemen extraordinary, had thus casually found the abiding place of a people who, centuries ago, built their homes upon the rock ledges—a people whose origin and passing must ever remain an enigma. We know them simply as the cliff dwellers of the Mesa Verde, or, as the land is also frequently called, the Green Mesa, from the cedar and piñon trees which give it verdancy. More than a decade before the Wetherill boys first spied the wonders of the sandstone cliffs, venturesome agents of the Federal Government had explored the canyons of the Mancos River, but had overlooked these treasures of the byways. To-day the region within which the tottering villages lie is a public reservation, both school and playground, the Mesa Verde National Park. It covers

Photograph by G. L. Beam, Denver, Col.

Excavation of "Far View House"

By Dr. J. Walter Fewkes, Chief of the Bureau of American Ethnology, Smithsonian Institution. Previous to excavation this was a large mound, on which were growing bushes and other vegetation. It is off top of the mesa and may be of later construction than the other large ruins in the sides of the canyons

Photograph by G. L. Beam, Denver, Col.

Dr. J. Walter Fewkes

Chief of the Bureau of American Ethnology, Smithsonian Institution, Washington, D. C., who for a number of years has conducted research work in Mesa Verde Park. His campfire talks at night during the summer are a feature to be remembered by those fortunate to hear them

an area larger by far than the District of Columbia and larger indeed than any other tract set aside by Congress solely for the preservation of antiquities.

Geology explains the natural features of the country. The torrential rains that swept the broad plateaus for hundreds of years eroded the land and formed a labyrinth of canyons which extends for miles and miles. Into these deep gorges succeeding torrents rushed in their mad race to the Mancos, literally "scooping out" shadowy caverns, many of which are half a hundred feet high and six times as long.

Here the ancestors of the cliff dwellers found protection not only from biting storm and burning sun, but also from wild animals that stalked about, and human foes whose law was the survival of the fittest. In and out of their aerie homes the cave men climbed by means of foot and hand holes cut in the sides of the cliff, or by following the winding trails that ran down from the top of the mesa and ended abruptly at some narrow entrance between two rock masses.

With the passing of the years, the more adventurous members of the clan located on the top of the plateau and built rude dwellings of clay, with their floors sunk beneath the surface. These structures have been likened to the Navaho hogan, but they were nothing more than pits roofed with plastered logs, with an opening for the smoke which rose from a central fireplace. The only suggestion of masonry is found in what were evidently storage bins formed by laying slabs of stone edge on edge. The remains of hundreds of these earth lodges are scattered over

the mesa, but the tourist of to-day sees them only as low mounds covered with dense growths of cedar trees.

Afterward came the cliff dwellers—a much advanced race—who formed a partnership with nature in the science of home building. They fashioned stones into perfect blocks and built the solid walls which have withstood the lashing storms of time forgotten. Masterpieces of architecture, the survivals of the cliff dwellings tell the story in the mute language of the ages.

Visitors to the park stand spellbound as Cliff Palace, Spruce Tree House, Sun Temple, and the rest greet their eager gaze. So called apparently because it is the largest of the dwellings, Cliff Palace looks down to the bottom of the canyon from an elevation of several hundred feet. A community house with rooms strung out in the form of a crescent, it lies along a narrow shelf of rock close to the edge of a precipice. How painstakingly they builded this edifice, composed not of one but of several stories, which reached to the overhanging rock—a natural roof! Many of the walls have fallen, so that it is not possible to say just how many rooms it contained, but Dr. Walter Fewkes, noted American ethnologist, who knows the ruins better than any other man, estimates that there were two hundred. The floor of the cave is practically level, but is strewn here and there with huge boulders. Too big for primitive man to budge, these rock masses were used as foundations, and determined the levels of the plazas. Thus it comes that one window or a group of windows in a cliff dwelling is frequently higher than the others. The rooms are not arranged

Photograph by G. L. Beam, Denver, Col.

Visitors Examining Spruce Tree House

This is the second in size of the prehistoric ruins on the mesa. It is 216 feet long and contained 114 rooms. A kiva, or underground ceremonial chamber, is shown in the foreground. There are seven other kivas in Spruce Tree House

Photograph by G. L. Beam, Denver, Col.

Balcony House

Northern end, showing balcony. One of the most interesting and best preserved ruins found in the park. It is estimated to have contained 25 rooms

in any regular manner, but the fact that they are not crowded together indicates that even these prehistoric people thought something of comfort and of class distinctions.

Men versed in the science of races say that the cliff population was made up of a number of clans, each with its own social organization. The quarters of a clan were not necessarily connected, but each room or group had its separate use. There were square rooms and round rooms, and rooms of uncommon shape, but perhaps the most interesting of all were the "kivas," the generally circular chambers wherein the men gathered for the great councils or religious rites. Some twenty-odd kivas were found in the Palace—vast subterranean spaces, the walls of which were painted yellow or red and were oftentimes blackened with smoke. Numerous living-rooms there were also, and other enclosures for granaries or the storage of corn. The metate, or, popularly speaking, the mill (just two flat stones), for grinding corn into meal was placed in still another room. Some such unit as this appears to have constituted the house that belonged to a clan.

In keeping with the early philosophy of peoples who comprised the higher levels of savage religion, the cliff dwellers worshiped the sun. Fire was always the symbol of union among the redskins of North America, and as the rites of worship of earthly fire lead naturally upward to the great personification of heavenly fire, it was to be expected that they should venerate this blazing orbit in the skies. Did it not make the rain fall and the corn grow, and were not all the other blessings that Mother Earth gave

forth in obedience to its edicts? They believed these things, and so built themselves a temple in which to do honor to their idol. It was not until a few years ago that this wonderful house of worship was dug from out the ruins.

On the top of a point high above the steep cliffs was a tremendous mound of earth covered with trees and bushes. Scattered about were numerous stones apparently hewn into shape with primeval tools. The explorers thought to find another pueblo or communal dwelling, but, as the work of excavation progressed, it became obvious that here was something new in cliff architecture. When the last shovelful of dirt was upturned, one of the most instructive buildings in the park was revealed. Sun Temple it is called, scene of the great ceremonial dramas of the clans, age-old yet paradoxically new. The building is in the form of the letter D, and many of the stones which make up the thousand-odd feet of walls are highly decorated.

The corner stone of the building contains a fossil leaf of a palm tree, identified as belonging to the Cretaceous period. Influenced by anything which even in shape resembled the sun, the primitive people walled in the leaf on three sides and made a shrine. Archæologists interpret this as the key to the purpose of the building, though other interesting theories have been advanced. Some have said that it was a prison, a Spanish mission, or a theater, while still others contend that it was erected as a bulwark against invaders. This last deduction was not altogether untenable, for the temple was purposely constructed in a commanding position in the vicinity of large neighboring cliff houses where the defenders of the clan honor could have at least halted the vanguard of their enemies. But the place was manifestly not intended as a fort. It is not the size or shape of a stronghold, and its walls are not of sufficient

Photograph by G. L. Beam, Denver, Col.

Northern Portion of Spruce Tree House

It is situated but a short distance down the canyon from Spruce Tree Camp, where tourists are taken care of

Photograph by G. L. Beam, Denver, Col.

Climbing to Balcony House

This is one of the most interesting and most picturesquely situated of the many prehistoric ruins on the mesa. It is estimated to have contained 25 rooms

thickness. It has, moreover, no portholes through which the stone-tipped arrows could have been propelled. Nor was it conceived as a habitation, a fact evident from the form and arrangement of the rooms. No, Sun Temple was a place of worship, the work of a fusion of the clans that produced in this structure the finest bit of masonry in the park.

Near the top of the highest wall the exploring party found a giant cedar whose roots had reached into the rooms of the temple. These were cut off in the work of exploration, and the big tree had to be felled. Nearly four hundred annual rings circled its trunk, and this fact, considered with allowances of time for the falling of the walls and the consequent forming of the mound, takes the antiquity of Sun Temple back to about 1300 A. D.

And then there is Fire Temple, called Painted House until little more than a year ago, when further excavations were undertaken and it was found to be a specialized building and not a habitation. This is situated in a shallow cave in the north wall of Fewkes Canyon, named for the man whose researches have done so much both for student and sightseer. The building is in the form of a rectangle, being about twice as long as it is broad. The walls inside are painted red and white, and are adorned with symbolic figures. In the center of the court, with its hard adobe floor, a great pile of ashes was found. Maybe they kept a perpetual fire; certainly the fire was kindled bright for the weird dances held at stated times when the natives pranced around the blazing mass and pleaded with the god of fire to exert his power over the evil spirits, to dispel the demons of darkness.

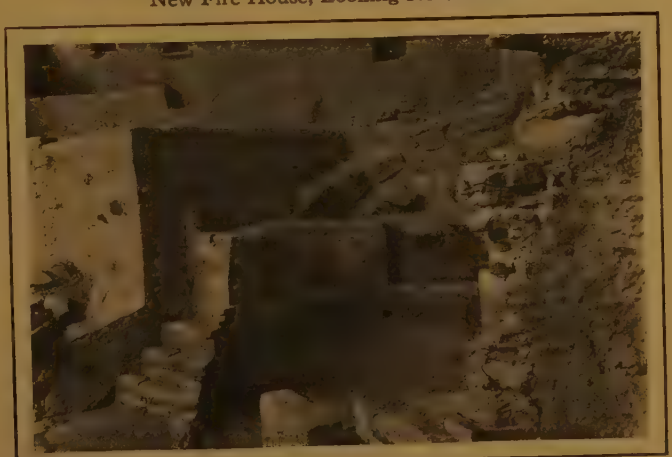
One could go on with the description of these splendid ruins and weave a story that would excite the imagination of the most slothful, for there are other community houses or dwellings just as interesting as those described. Spruce Tree House, taking its name

from a tall tree which grew before the place, but which has since succumbed to the ax, rose to the under side of a cliff nearly half as high as the Washington Monument. It has more than a hundred rooms, eight of which were the circular ceremonial chambers, or kivas. This and Square Tower House, Balcony House, and others are the links in the tragedy of a people concerning whom there is practically no documentary evidence. They had no written language, these habitués of the cliffs, but their thoughts found expression in curious symbols painted on earthenware jars or scratched on the sides of the cliffs. Some of these paintings and rock markings closely resemble the picture writing of the Indians of a later day, but most of them are rather meaningless, grotesque figures in the form of spirals, zigzag lines, and other undecipherable things which can be given no interpretation. Occasionally a bowl or fragment of broken pot shows a more intelligible design—the crude painting of a bird, a hunting scene, or something similar—but we do not know what it means. Picture writing is a familiar phase of the history of the North American Indians, who perpetuated the memory of past events in simple but characteristic symbols. The objects shown in these drawings are generally easy to recognize and can be interpreted by members of a descendent tribe, but the rock markings and paintings of the Mesa Verde people are a mystery to everybody. The figures and emblems they employed in their curious drawings have been so changed by unknown hands or by the elements that it is impossible to trace them to their originals.

In the ceramic art the cliff people left an enduring impress on the centuries. Nordenskiold, the eminent Swedish explorer, and Dr. Fewkes have both searched the inmost parts of the ruins and have brought forth certain archæological remains which prove beyond all question that they

Courtesy National Park Service

New Fire House, Looking Northward



Courtesy National Park Service

Kiva, or Council Chamber, Cliff Palace

Photograph by G. L. Beam, Denver, Col.

A Portion of Cliff Palace, Looking Southward

This is the largest of the many prehistoric ruins found in the park. It is 300 feet long, and probably contained 200 rooms, including 23 kivas, or underground ceremonial chambers. The round tower is shown at left of center, the square tower at right

were a superior race. Their pottery may be called beautiful even when judged by the advanced taste of to-day. Magnificent bowls and jars, coiled and plain, and ornamented in black or white or red, or perhaps all three colors, disclose a fine intelligence and an appreciation of things esthetic. The vessels were molded by hand to the shape desired, and then baked. And their skill in this process of baking is another tribute to their memory, for the surfaces of these remarkable vessels were made so hard that they cannot be scratched, even with steel. The large jars were used for carrying or storing water, or for culinary purposes, as is shown by the fact that some of them are coated with a layer of soot. When cracked or otherwise rendered unfit for frequent use, the receptacles were employed for the storage of maize, oftentimes being sunk in the masonry at the bottom of a niche within the cliff dwelling. Ladles and spoons were also molded from lumps of clay, and when they dried the surface was carefully smoothed by rubbing it with a round stone. Homely articles were these, though, and not to be compared with the richly ornamental bowls and jars which, by all the standards of the potter's art, will pass the closest scrutiny to-day. The collection of Baron Nordenskiold shows them to be almost perfectly circular, the diameter in different directions varying hardly more than a fraction of an inch. One marvels that the untutored savage could have fashioned these things in which the eye can find no defect. And as for the decorative art, it is both striking as to design and combination of colors. The basic pattern in ornamentation appears to

have been the result of chance rather than ingenuity, following quite naturally the common method of weaving or plaiting the rush mats, sandals, and baskets. Nature provided the varying shades of straw used in weaving, and the natives probably suddenly discovered that by taking strands lying in one direction and making them darker than those lying at right angles a decorative effect could be obtained. Out of this, the simplest form of weaving, the cliff artisans evolved the more complicated patterns which have excited the wonder of our own age. Then they copied these designs on the sides of the earthen vessels which outlived the centuries and at last became the heritage of the white man.

Judged by their skill in architecture and ceramic productions alone, the Mesa Verde people would be rated higher than they deserve, for the other objects which they left behind are evidence conclusive that there was no advanced development of any special industry. It is this contrast, however, between extremely high attainments on the one hand and a mediocre condition on the other that makes them a doubly interesting people. For them life was a real struggle. They were not great warriors, and yet were constantly menaced by barbarous tribes of nomad Indians who waged a war of extermination. The cliff colony would have preferred to till the soil and advance the industries, but their troublesome neighbors compelled them to devote most of the time to the building of better houses and stronger fortifications.

Doubtless they were often besieged, and as water was to be found only at the remote heads of canyons it was necessary that they store up

Courtesy National Park Service

Southern Entrance to Balcony House, Outward Side

Note porthole above door; behind the hole is a platform on which a guard could station himself to pick off intruders

abundant supplies for the time when they might be set upon by their enemies. In this we find a reason for their proficiency in the potter's art. They just had to have the large vessels in which to carry and store water, though they might neglect the industries. The use of metal was unknown, so it goes without saying that their weapons of defense and implements of toil were the crudest kind. Axes and knives they hewed from the rocks, and from jasper and flint they made their arrow and spear heads.

Those that follow us will gaze in wonder at the ruins of mystery. And, even as we do, they will take up the interesting bits of cliff-dwelling culture, and try and place them together. Distinct and perhaps fuller lines of research will be open to them, but will they not be confounded, as we are, by the abrupt ending of the trail of race migration? Can they learn anything more from the bits of bone, the pots and baskets, the arrowheads and other relics? The arrowheads and axes were not solely for peace-time pursuits; they were necessary to existence as the cooking utensils.

How long then did they withstand the onrush of the barbarians? No one knows. All that we do know is that they builded in the cliffs these hundreds of years ago, lived their rather tempestuous lives, and vanished without hint or trace of their fate. Perhaps they emigrated to neighboring valleys southwest, or maybe they were driven out by the hostile bands which had tormented them during all the years. One conjecture is as good as another, for conjecture is the only thing which can be used in the attempt to explain their passing. Romancers like best, however, the theory that the "little people," as they are called by the Ute Indians who to-day live upon the reservation next the park, mustered their forces and made a last stand against the tribes that sought their annihilation. The odds were too great, they say, and the gallant race went down before the furious attack. *Tout est perdu fors l'honneur!*

Courtesy National Park Service

Sun Temple, Above Fewkes Canyon, Looking East

INDIAN BLANKETS
AND THEIR MAKERS

By GEORGE WHARTON JAMES

Author of "Indian Basketry," "What the White Race May Learn from the Indian," "The Indians of the Painted Desert Region," "In and Out of the Old Missions of California," etc.

Hopi Ceremonial Blanket

(Collection of J. L. Hubbell)

This blanket is made of cotton, grown, spun, and woven by the Hopis themselves. The designs, top and bottom, are worked in with colored yarn, by embroidery methods. In the two outer diamonds of the bottom row are to be seen rainclouds, struck by lightning, and the descending rain, clearly indicating that this blanket was worn by some woman during a ceremonial prayer for rain

EDITORIAL NOTE—The beautiful pictures of Indian blankets pictured here are printed in The Mentor by courtesy of A. C. McClurg & Co., Chicago, publishers of Mr. James' book on Indian blankets

INDIAN BLANKETS AND THEIR MAKERS

IN THE MENTOR some time ago, interesting articles on "Rug and Rug Making" and "Chinese Rugs" were presented. Therein were pictured rugs made by peoples whose art instincts were highly cultivated, and whose appreciation of color values had been trained for centuries. These represented the highest and finest development of the rug-weaving art, its most artistic and pleasing expressions. In this number I am to present the same art but in its primitive expression; the work of a people still in a state of almost aboriginal savagery. There are great differences, naturally, the Orientals having attained through the influence of centuries the refinements of civilization and culture, the love for soft tones and colors, and small, delicate, and conventionalized designs, while the Navaho Indians of our American Southwest still love the simple, direct, strong, primary colors, and the more forceful and striking designs before they have lost their identity by too great conventionalization.

Courtesy A. C. McClurg & Co., Chicago — Photo by A. C. Vroman

A Navaho Weaver

Almost invariably the Navaho weaver is a woman. Her loom is most primitive and yet thoroughly adequate for the work. It is generally set up out of doors, with a wide brush shelter over it to protect the weaver from the too bright rays of the sun. It is supported by two upright poles surmounted by a transverse one, the upper yarn-beam being lashed to this by a cowhide rope, and the lower one lashed to pegs driven in the ground. The weaver has no shuttle, merely thrusting a ball of the yarn required in and out of the warp. The design she carries in her mind, and she herself is the creator of all the many and various patterns now found woven in Navaho blankets

We consider here the weaving art in its earlier, simpler, and more primitive expressions, as it appeared during the childhood of the race. There can be no question that the weaving art originated with the aboriginal Indian woman. She became discontented with mere skins of animals, etc., and, being a keen observer and imitator, early saw the unconscious weaving of wild climbing vines, and the instinctive weaving of birds making their nests.

It is generally conceded, too, that weaving preceded the art of pottery. Indeed, Lieutenant Frank H. Cushing found practical demonstration of this among the Indians of our American Southwest, where the basket was the matrix in which the first pottery was molded.

Another remarkable fact should not be ignored by those who deem the Indian as a useless cumberer of the ground. Researches made in the haunts of the people who were prehistoric ere the Spaniards discovered this continent, and later discoveries made in the ancient cliff dwellings and cave habitations of Arizona, New Mexico, southern Utah, and Colorado, conclusively prove that every stitch or weave known to modern civilization was invented and used by the aboriginal weaver before we took possession of the land.

There has been some discussion as to whether the Navaho* Indians, who are the

*It will be observed that I follow the Bureau of American Ethnology's method of spelling Navaho. It is much to be preferred to the alien, misleading, and altogether unnecessary Spanish method, Navajo. This tribal name is not a Spanish name. It is peculiarly American. There is no more sense in following the Spanish fashion in spelling of 350 years ago than the Spanish method of dress of that period. Were it a Spanish name, dealing with a tribe in Spain, it might be correct to follow Spanish spelling. But, as it is purely American, there is no reason why intelligent Americans should be misled into referring to the Na-va-*joe* Indians, as the Spanish spelling indicates.

chief exemplifiers of the weaving art in our Southwest to-day, learned from the Pueblo Indians, from the Spaniards, or brought the art with them from their earlier home in the north.

It is now generally agreed, however, that the Navahos had a loom, and knew how to weave even in their Alaskan habitat, before they migrated to Arizona and New Mexico.

The art has fluctuated considerably in historic times, even in the past thirty-five years or so. Sixty-five years ago travelers reported five blankets woven by the Navahos and used by them and the Mexicans. When New Mexico was seized for the United States by General S. W. Kearny, in 1848, he and his officers commented upon these beautiful and remarkable blankets. They even stated they would hold water, so perfectly and tightly were they woven, and the rich and permanent value of the dyes—which were said to be native and vegetable—excited universal admiration. The designs woven into the blankets also were observed, and their striking originality extolled. Yet in spite of these evident points of superiority few Americans appreciated them, or realized what rich artistic treasures they were carelessly and indifferently passing by.

It was not until the Indian "fad" or "craze" struck the people of the United States about 1890, that their worth began rightly to be estimated. There had been a few people living in Arizona and California, people whose mentality was independent enough to see for themselves, and to form their own standards, who had made collections of Indian baskets and blankets, but in the aggregate their number was small.

But now the "craze" had begun there was a remarkable demand for every kind of Indian work. Blankets, baskets, moccasins, beadwork, buckskin shirts, bows and arrows, pottery—everything of the kind was eagerly gathered up.

The effect of this demand upon the weaving art was lamentable. The traders called for more from the Indians than they could supply, and, having no other thought than immediate returns, urged them to make and bring in anything in the way of a blanket—no matter whether poor, coarse, dirty, and indifferently made, so long as it was Indian, and they would buy it. In a short time the

Courtesy A. C. McClurg & Co., Chicago

Winter Hogan of the Navahos

Every Navaho builds a winter as well as a summer home. The latter is merely a brush shelter against the sun's rays, the former a well-constructed, carefully protected oval structure, perfectly adapted to keep its inmates warm and dry during the severe winters of the New Mexico plateaus. The ceremonial dedication of these hogans—pronounced, by the way, with the accent on the last syllable, so as not to confound it with the Hibernian Hogan—is a remarkable witness to the purity of mind, elevation of thought, and high aspiration of the Navaho

Courtesy A. C. McClurg & Co., Chicago

Rare Old Bayeta Pattern

(Author's Collection)

The word bayeta is merely Spanish for *baize*. Great quantities of this were made in England for the Spanish and Mexican trade, the major part of which was of a brilliant red color. In this way English *baize* became Spanish *bayeta* to the Indians of the American Southwest. Familiar with the art of weaving, these Indians unraveled the bayeta, retwisted it into one, two, or three strands, and then rewove it into their blankets, which are now almost priceless. This old blanket was picked up by the author in a New Mexican corral, for the purpose of wiping his buggy axle. It was covered with filth and mud. A number of "washings" revealed this glorious specimen of the weaver's art

Courtesy A. C. McClurg & Co., Chicago

Bayeta Chief's Blanket

(Fred Harvey Collection)

This is a beautiful old Navaho—the red of the bayeta, from years of usage and the action of water and the sun, having toned down to a beautiful rose color. A chief's blanket, in the olden days, was woven broadside on, so that when he wrapped himself up in it the design came around him instead of in the perpendicular. The Navaho name for this style of blanket is Honal-Kladi or Honal-Chadi

Courtesy A. C. McClurg & Co., Chicago

Elle, of Ganado, Arizona, One of the Best Weavers

Naturally among Navaho blanket weavers, as with all other artisans, there is rivalry, and there are those who have natural aptitudes, those who are lazy and indifferent, those who enjoy their work and are spurred on with the spirit of high endeavor. Human nature is much the same whether among the civilized or the aborigine. Of the best weavers of the Navahos is Elle, here pictured, born at Ganado, the home for two centuries of skilled weavers. She inherited her ability and artistic taste from her mother, even as her own daughter, Tuli, has inherited from her a similar ability and creative genius

country was flooded with such work. The discriminating refused even to look at it, and only the undiscerning and foolish were taken in by it. The consequence was that, in a very short time, as a mere matter of self-protection, the Indian trader was compelled to ask for better work, to refuse improperly made blankets, and to demand a higher standard.

In his earlier haste he had introduced aniline dyes, and having suggested that the wilder and more bizarre the colors, the more his uneducated white purchasers would like them, the world was flooded with hideous, vile, abominable color schemes, which, however, some people insisted upon regarding as "so distinctively Indian." The fact of the matter, however, is that they are just the opposite. The chief and original colors used by the unspoiled Indian weavers were white, black, and gray, from the native untouched wool, the gray being made by a judicious mixing of the black and white. Then they gained a good and substantial red, from a peculiar kind of cloth, a baize, made in England especially for the Spanish trade, and which was known to them as *bayeta*, the Spanish for *baize*. This cloth they unraveled, and then treated the thread in two or three different ways. They seldom rewove it as it was into their blankets.

When they wished to do extra fine work, they *retwisted* it, making it firmer and tighter, and thus rendered their goods more hard and solid than any product of the white man's looms. It is no exaggeration or symbolic statement to say that blankets so woven can turn rain and hold water. I have carried water, without the leakage of a drop, a distance of seven miles, in such a blanket, and hundreds of soldiers and cowboys, prospectors and others who have tested them, swear by them for the protection they afford in the fierce torrential rainstorms that occasionally burst over Arizona and New Mexico.

When a thicker weave was desired, two, or even three, strands were twisted together. If the weave was to be comparatively loose and yet thick, the two or three strand new

Courtesy A. C. McClurg & Co., Chicago

The Playing Card Blanket

This is a very fine bayeta blanket, the body in red, and it has become famous, owing to the enterprise of the Pasadena bookseller who purchased it in New Mexico. This bookseller published a set of very artistic playing cards, on the corner of each of which he had engraved a California scene of striking beauty. The backs of these cards were adorned with a reproduction, in colors, of the design of the blanket. Hence it is now known throughout the world, though all who use the cards may not know of the origin of the design

Courtesy A. C. McClurg & Co., Chicago

An Old-Style Navaho

(Author's Collection)

Elsewhere I have described this as a "beautiful soft piece of weaving." It is a blanket in use daily on my lounge. It is not only a delight to the eye in the rich harmony of its colors—modified by time and usage—but to the touch, in the softness of the strands of which it is woven. Of course it is all wool, and the strands are not tightly twisted, nor the wool closely "battered down," hence its soft pliability

Courtesy A. C. McClurg & Co., Chicago

Rare Old Hopi Pattern

(Fred Harvey Collection)

A fine specimen, possibly woven by a Hopi, though the central and upper and lower designs are purely Navaho. The general color of the black, brown, and blue stripes suggests its probable Hopi origin, for these Pueblo Indians are occasional weavers, and most of their blankets are made in simple stripes of the colors named, alternating with white or red. The years have softened the colors so that it has an iridescence of rare quality

Courtesy A. C. McClurg & Co., Chicago
Fine Modern Blanket of the Best Type
(Fred Harvey Collection)

warp was loosely twisted; if it was needed thick and yet solid and firm, the twist was made as tight as it would bear.

There were other colors in which the bayeta occasionally came, such as *morado subido* (strong violet, or purple); *rosa bajo* (dull rose); *oro* (gold); *amarillo tostado* (yellow with a light brown tinge); *grana* (deep scarlet); *dragon*, *sajon hermosa*, and a score of others. But it was seldom that any other color than red was unwoven and retwisted; hence, even among fairly well-informed traders and collectors, bayeta is known in no other color than red.

But the Navahos demanded more than the black, white, gray, and red. They learned from the Mexicans the use of indigo, and dyed much of their wool blue. In the earlier days they used a blue bayeta, which gave them a far more steady and uniform color than they were themselves able to get from indigo, hence the richness of the earlier blues as compared with those of later date.

They also learned to use the brazil sticks, which gave them a good red, in addition to the bayeta.

Another color became very popular with them, which can best be described as rich old-gold-green. It is a delight to the eye, and in the better of the earlier blankets is so combined with other colors that such a blanket is an object to be coveted. This color they made from a plant commonly known as the rabbit weed (*Bigelovia graveolens*). It is a member of the aster family and grows on the open plains. It has a slender stalk crowned by a mass of yellow blossoms. These flower clusters are boiled in water for several hours, while the squaw places native alum (*almogen*) in a frying pan, and beats it until it is reduced to a pasty consistency. In due time this paste is added to the dye as a mordant, and the mixture is ready to receive the wool. The tints gained from this dye vary from a canary-yellow to an old-gold-green, and occasionally even an olive-green is produced.

When the aniline dyes came into use, these old methods were discarded, and we were treated, as I have said, to such vile combinations as were enough to startle the dead. Again, aroused public opinion demanded a change, though slowly, until now the traders do not carry in stock any except the dyes they know will be generally acceptable to the purchasers of their blankets. At the same time, first one, then another, trader began to insist upon greater care in cleaning the wool, so that all the sheep smell was eliminated; they also demanded a return to the use of wool warps (which in the get-rich-quick days had been abandoned for cotton warps), greater care in dyeing, carding (to free the wool from burrs and impurities), and more restraint in the combination of colors. The results have been that the art has slowly returned, approximately, to its original state, and it can safely be affirmed that as good blankets are being made to-day as ever in the history of the art.

One phase, however, must not be overlooked. For many years blankets were made, large and small, from Germantown yarn. When well made, with wool warps, the yarn rewoven to the Navaho standard of tightness, these blankets were of a very superior order, and were rare and highly to be desired. But where cotton warps were used they were

liable to give way—the cotton being less elastic than the wool warps—and allow the blankets to fall to pieces. These blankets, however, are seldom made now by the Navahos, although there is a variety of Germantown blanket that many people do not differentiate from a Navaho. This is a Mexican blanket made at the New Mexican settlement Chimayo, a name given to seven small villages near the Rio Grande valley, ten or twelve miles from Espanola, a station on a branch of the Denver & Rio Grande Railway, which runs from Santa Fé to Denver, and about thirty miles north of Santa Fé.

These blanket-making Mexicans used to make an excellent blanket of native wool and native dye, specimens of which are highly prized, but to-day they purchase the Germantown yarn and cotton warps, making a fair blanket, but one which is not to be compared with those of their early make, or with those of the Navaho.

Hence—eliminating the Chimayo—we may speak of three kinds of Navaho blanket, all of which are to be found on the market, namely: (1) the old and rare bayetas, (2) the native dyed, native wool blankets of the early days, and (3) the modern blankets of good, fair, or poor weave, in which there is no dye whatever or where aniline dyes are used.

Much might be written about the significance of the colors used in Navaho blankets. Red is the color of sunshine to the desert weaver; hence, in the early days you could scarce find a blanket that did not contain red. Sunshine was the joy of the Navaho's life. He incorporated it, therefore, into his blanket, that he might wrap himself in it on the days when the dark clouds hid the sun. This symbolism of color prevails in everything the Navaho touches. He sees in the east the white light of the morning, hence white is always symbolic of dawn and the east. The cloudless south is generally blue, hence blue always symbolizes south. The sunset in the west is so often characterized by yellow that that color always symbolizes west and sunset; while from the north come the dark, black clouds, hence black symbolizes north.

Then, too, color has a symbolism of sex that is exceedingly interesting. The Navahos regard the rougher or coarser of two things that are much alike as masculine, and the finer or weaker as feminine. Thus they have male and female clouds, male and female lightning, and the north is masculine, because the harsh, stern winds come from thence; while the south, sending forth the gentle, fructifying rains, is feminine. These sex symbols of color dominate the wearing of masks in their religious dances and in the marvelous sand pictures they make in their medicine hogans, which have an important place in their ceremonies.

The designs, too, of the blankets when

Courtesy A. C. McClurg & Co., Chicago

A Fine Germantown Navaho Blanket With Good Outline

It was natural that, as the art of weaving became more common and popular among the Navaho women, many of them should desire to use the brilliantly colored Germantown yarn, when the traders introduced it. It saved them the trouble of cleaning, carding, spinning, dyeing, and generally preparing their own wool. For a time many "Germantowns" were made. There are but few that now come from the Navaho looms. The delicate outlines of this design is a feature of adornment that greatly enhances the forceful quality of the pattern, and is used effectively by comparatively few of the weavers

Courtesy A. C. McClurg & Co., Chicago

A Rare and Exquisite Colored Bayeta

(Vroman Collection)

Seldom does one see so beautiful and delicately toned a blanket as this. Its creator was an artist in beauty. It is mainly white, with stripes and connected diamonds in red and deep blue, with a thin line of old-gold-green here and there. Time and wear, sun and rain, have changed the colors until now it is an exquisite symphony of tones, charming to the critical eye

Courtesy A. C. McClurg & Co., Chicago

A Good Specimen of an Old-Style Native Blanket

(Author's Collection)

The art of blanket weaving as practiced by the Navahos has had its epochs. This specimen goes back to a time prior to their use of "Germantown" yarn, when they were carefully cleaning and dyeing the wool of their own sheep, using indigo for the blue, but making their own dyes for the yellow, red, and old-gold-green. It is softer and more pliable in texture than either the "Germantowns" or the later well-woven commercial blankets

they were first made, and for many years thereafter, had a definite significance, known only to the weaver, but which she treasured in her own heart. She incorporated in these designs, and in the symbolism of the colors used, the hopes, prayers, longings, aspirations, legends, myths, and present-day history that were uppermost in her mind at the time of weaving. But the Navaho of to-day has been cursed by our commercialism. She has lost the purer art and love of it that characterized her simpler days. And while she makes equally as good and perhaps a better blanket than she used to, it is as a commercial enterprise, and not as a work of affection. Hence the dealers often now dictate what designs they wish to have reproduced, a thing that in the primitive and simple days of the weaver would have been impossible. So that now none but very old and obstinate weavers persist in creating their own designs and putting into them the thoughts of their hearts. They are more likely to follow some evanescent mood, as did the weaver of the blanket pictured on page 28, whose weaving hogan overlooked the Santa Fé railway.

To-day the art is constantly improving, though during the great war it was almost impossible to purchase blankets from the Indians. The demand for wool denuded the Navaho reservation of that article, and blankets could scarcely be obtained at any price. But for several years past the traders and the more progressive of the Indian agents have been holding Blanket Fairs, where prizes for the best work shown have been given. These fairs have been great inspirations and incitements to the weavers to higher endeavors. They have been stimulated to produce most beautiful work, and the prize-winning pieces were eagerly purchased even before the fairs were over.

Courtesy A. C. McClurg & Co., Chicago

Lightning Design Blanket

Lightning is closely connected with rain, and rain is the most desired of all gifts of the gods to the Navaho people, who dwell in a desert, arid land. Hence the zigzag symbol of the lightning often appears, and always with the significance that it is a reminder to the gods that rain is being earnestly prayed for

CLEANING THE NAVAHO BLANKET

To the housewife the cleaning of valuable and highly prized blankets becomes a serious matter.

The Navahos themselves have two methods of cleaning them. One is to take the soiled blanket out into the sand of the cornfield, and then shovel damp sand upon it and allow it to remain buried for a day or so. It is then well scrubbed with the sand, thoroughly beaten and shaken, and allowed to dry and air fully in the sun.

Where a more thorough cleansing is required, the saponaceous roots of the *amole* are taken, macerated into shredded fiber, beaten up and down in a bowl of water until a rich lather is produced. With these suds and a rude brush made of shredded cedar bark the blanket is soaked and scrubbed on both sides, after which it is rinsed with water. No soap known to modern civilization equals this natural soap used for so long by these Bedouins of the Painted Desert.

The modern vacuum cleaner solves the problem for the housewife in ordinary cases. In extreme cases, and in case of fine old rugs, the housewife had better consult an expert.

Courtesy A. C. McClurg & Co., Chicago

"Extra" Native Wool Undyed Blanket of Striking Design

Modern Navaho blankets are as carefully graded as are any other products of the white man's loom. This is an "extra," because the wool of which it is made is pure, clean, well twisted, and the blanket itself is of good design and well woven. It is peculiar, however, in that all its colors are natural—none of the wool is dyed. Here are black, white, gray, and brown. The gray is formed by a mixture of black and white, while all the other colors are just as the wool was shorn from the back of the sheep. This blanket's design is strikingly original. Its weaver is one of the best and most artistic of the tribe. All her designs are peculiarly her own

Courtesy A. C. McClurg & Co., Chicago

Navaho Blanket of Symbolic Design

(Author's Collection)

The Indian is a natural symbolist, and also largely imitative. Hence in the designs of the weaver's choice one will find a variety with different significances. The weaver of the above blanket had placed her loom near the railroad track. As the trains passed, the idea flashed into her mind to reproduce them upon her blanket. Here, then, is the origin of trains going east and trains going west, and the curious will discover chickens, sleeping and day coaches with ventilators, cattle cars, birds on the track, as well as engines with headlights, smoke, steam, and cowcatchers

LISTENING TO YOUR NERVES

A NEW and curious use for the vacuum tube, that versatile instrument which makes modern radio telegraphy and telephony possible, has been found by a German scientist. He is using it to measure human fatigue.

The vacuum tube resembles the ordinary electric light bulb, but examination shows it to be more complicated. The light bulb contains a tungsten filament which glows brightly when an electric current is passed through it. The vacuum bulb has this filament and, in addition, a metal plate and grid, separately connected. By what is known to electricians as "thermionic" action, this bulb when put into a circuit over which a feeble current is passing reinforces that current with additional energy from a local source. Thus when electric waves too faint to operate a telephone are received at a radio station, the bulb "steps them up" to the necessary strength. Additional bulbs are used to amplify these electric impulses until sufficient power is obtained.

The Vacuum Tube

These bulbs and "loud speakers," used on ordinary telegraph and telephone lines, enabled audiences in all parts of the country to hear President Harding's Armistice Day speech on November 11, 1921. The President's voice falling on the diaphragm of a telephone transmitter at Arlington sent electric impulses traveling over the wires across the continent. At San Francisco the bulbs received the weakened impulses, built them up to sufficient strength to operate "loud speakers," which projected the President's voice to every corner of a big auditorium. In this process the original electric impulses were amplified ten trillion trillion times.

Now, Professor Höber, of Kiel, Germany, is using the bulb to "listen in" on the operations of the human body. All the life processes—the motion of the muscles, the chemical changes that take place in the tissues, the action of nervous matter—are accompanied by the generation of electricity. When you move a finger you set up a faint current within it. It is possible to measure these faint currents and thus obtain a measure of the duration and intensity of any given vital process. At the beginning of the action there is an increase of electrical energy, but as the muscle or nerve becomes tired a corresponding decrease is observable. Using amplifiers and a telephone, Professor Höber was able to fill a lecture-room with the pulsation of a man's heart, and point out irregularities in its action! The lower leg of a frog was excited with an alternating current of 50 vibrations a second. A loud drumming noise was produced. The current was increased to 100 vibrations and the excited muscle responded with a louder tone. But when the muscle became fatigued the loudest sound faded away to a whisper. After a period of rest the muscle responded with its original sound, which again died down to a whisper as it became fatigued.

These tests developed another interesting feature. It was found that nerves are much harder to fatigue than muscles, which appears to throw some light upon the capacity for long-continued effort among brain workers in times of special stress.

The vacuum tube was first used in radio signaling by John Ambrose Fleming, professor of electrical engineering at the University College, London. In 1904 he devised what he called an oscillation valve, which contained no grid, but was otherwise similar in principle to the bulb of to-day. Lee De Forest, the American inventor, added the grid and further developed the tube in his "Audion" detector. English, American, and French inventors have made further improvements in the instrument and its use.

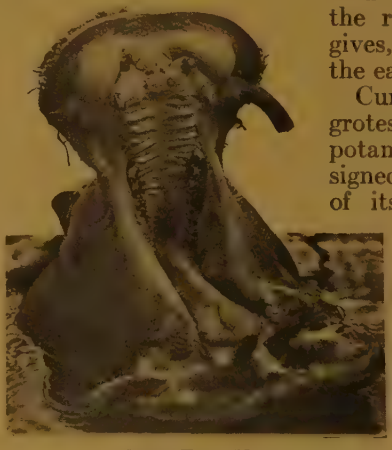
This is particularly interesting since it evidently supplies us with a very exact means of measuring fatigue, and facilitates the study of its effect upon the human body.

MY NEIGHBOR THE HIPPO

THE mud hut in which I lived for five years in British East Africa was situated within two miles of Lake Elmenteita. This remote stretch of water remains to this day undisturbed by white men. Except for an occasional naked savage with spear and club, no human being troubles the lives of its unnamed waterfowl and scarlet flamingos.

I used to wander down to its shores because I knew its colored depths were inhabited by hippopotami. At certain seasons from sunrise to sunset the air would resound with their trumpet-like bellows.

These "zee-koes," or "cows of the lake," as the Dutch pioneers call them, seldom leave the water in the daytime, and to it they return at the first indication of danger. Throughout the long tropical noons they lounge at ease in it, sometimes floating on the surface, sometimes walking about on the sandy bottom of the lake, and sometimes lying on some muddy reach with their great overweighted heads resting upon each other.



A Four-Foot Yawn

"The span of a hippopotamus's mouth is simply astounding," says the author of this article

But toward sundown these preposterous primeval animals, growing impatient for their land pastures, draw in toward the shore. You can catch sight of their heads appearing now here and now there, so close that it would seem possible to cast a stone down the incredible gaping mouths that yawn at you from the lukewarm water. The span of a hippopotamus's open mouth is simply astounding, from jawbone to jawbone it cannot measure less than four feet.

I used to believe that they never wandered far from the lake in their midnight excursions, but as a matter of fact I have found grass that had been chewed by hippos at least three miles away. On a moonlight night I have stood on a rocky hill and observed the country for acres around dotted with their dark shadowy forms moving slowly forward as with lowered heads their enormous mouths drew in the cold, dew-drenched grass.

In every direction leading from the lake were "hippo paths"—wide, deep-trodden tracks that led through the rushes and brushwood. These tracks are distinguished from those of a rhinoceros; in walking, a hippopotamus moves the front and hind foot in two parallel lines so that the center ground under its body is not trodden upon at all. And so short are their legs that in the rainy season, when the soil gives, their enormous bodies drag the earth.

Curiously enough, for all its grotesque appearance a hippopotamus is most exquisitely designed for the unusual conditions of its existence: nature having contrived the anatomy of its skull so that its eyes, nostrils, and ears can remain above water when the rest of its body is submerged. Also its ears and nostrils are nicely fitted with fleshy valves capable of shutting out the water when it sinks below the surface. The specific gravity of hippopotami is such that they sink to the greatest depth without the least trouble; they do not dive, they simply allow themselves to disappear like submarines. They are also good swimmers.

One calf is born at a time. It sees light first in some hidden lair in the rushes near the water, to which the mother conducts it shortly after birth.

During its infancy the mother never remains under the water for any long period, but may be seen rising to the surface with the tub-like little hippo standing on her wrinkled neck. Hippopotami are devoted mothers.

A fight between full-grown hippopotami is indeed something to witness! I watched one once for a quarter of an hour. It took place in some rushes under a high bank. I had been attracted to the place by a succession of deep booming roars, and peered over the rocks. It was early morning. The lake was radiant with the first gleams of the tropical sun, which poured down upon the dried grass, green rushes, and baboon-haunted ledges where I was standing. The amphibia below appeared to me like two prehistoric monsters, tusking and gnawing at each other, struggling this way and that, and giving vent

Masai Tribesmen Dragging Dead Hippo from the Waters of Lake Elmenteita

periodically to loud resonant snorts which must have been heard even by the vultures far up in the cloudless sky.

At one time, during a particularly dry spell, when the lake water was probably stagnant and ill-tasting, a hippo made a habit of drinking at one of the farm troughs. If he had been content to drink decently I would not have had the slightest objection, but nothing must do him but he must place his great feet on the iron sheeting, bending and twisting it like tinfoil. I actually caught him at it one night, and rewarded him with a bullet from my rifle; but he got back to the lake, and it was not until three weeks later that his enormous balloon-like body came drifting in to the shore. It is just as well to steer clear of dead floating hippopotami, because eventually the accumulation of gas puts too great a strain on the wrinkled hide and a stupendous explosion takes place. However, I never shot one but with regret, and the misgiving that I also was accelerating the coming of the day when these wonderful and astonishing animals will be extinct.

Llewelyn Powys.

WHY DID THEY SAY NO?

GEORGE WASHINGTON, "first in war, first in peace," held second place in the hearts of several ladies he admired. Colonial maids—at least three of them—rejected his offers of marriage.

Mary Cary, Washington's first love, preferred a polished gentleman of wealth to the lanky youth from Virginia. By the year 1752 the impressionable young planter was in pursuit of another charmer, Miss Betsy Fauntleroy. Engaging in manner, heir to a large estate, he could not persuade the fair Betsy to revoke her "cruel sentence."

Mary Cary

First of the three women who rejected the marriage offers of George Washington

Four years later he was commander of the Virginia forces, rode a fine horse, wore a uniform of buff and blue, with a cloak of white and scarlet. To this romantic figure, all doors "flew open as he passed." While staying in New York he met Mary Philipse of Yonkers. His accounts at this period show heavy expenditures for tailor bills and considerable outlay "for treating ladies." Despite an ardent courtship, Mary declined his proposals, and in 1758 married Roger Morris. She died in London at the age of ninety-five. The only reason she is remembered to-day is that George Washington sought her hand.

The vivacious Mary Todd maintained that she was going to marry a future President. If ambition was her sole guide, one wonders why she didn't choose Stephen Douglas instead of Abraham Lincoln. Douglas was "unremitting in his attentions." He was "dashing and comely;" his rise had been notably rapid; he was prominent in Mid-western politics. When he proposed and was refused, it is said Mary Todd's promise had already been given to Lincoln.

Accepted by a cultured and talented belle, Lincoln, according to his law partner, had already been refused by Sarah Rickard, an obscure miss of sixteen, of whom apparently nothing further is known.

In the summer of 1845—the year in which "The Raven" was first published—Edgar Poe, journeying through Providence, Rhode Island, saw a woman in white, who stood in the moonlight amid the roses of her garden. She was Mrs. Sarah Helen Power Whitman, a widow of means and a poet. He became her suitor, and was accepted. During a later visit to Providence, Poe fell a victim to his intemperate habits, and precipitated a distressing scene at the home of his fiancée. Her relatives influenced her to break off the engagement. Mrs. Whitman afterward dressed always in white, defended Poe in a monograph, and addressed to his memory a series of devoted sonnets.

Though she was about forty-two at the time of the Poe episode, she had unusual charm, and her mental gifts impressed all she met. Poe subsequently became engaged to another well-to-do widow. This engagement was ended by his sudden death in 1849.

Poe's Helen

THE QUEEREST TREE

AMONG the earth's countless marvels there is nothing stranger than the *Welwitschia mirabilis*, nature's queerest tree. Although it is a tree, according to scientific classification, no one but a botanist would recognize it as such. It more resembles an overgrown mushroom. Yet it belongs to one of the big tree families, that of the Joint Firs.

The queerest tree lives to be one hundred years old and often attains a diameter of six feet, but it is never more than a foot in height! The reason for this curious habit of growth is found in the adverse conditions under which it lives in tropical Africa.

Dr. Frederick Welwitsche, a German botanist, discovered the queerest tree, and it is named in his honor. While director of the Portuguese Botanical Gardens he was commissioned to study plant life in Africa. He spent eight years there, from 1853 to 1861. In Damara Land he stumbled across the queerest tree, which he at first took to be a huge fungous growth. His description of the *Welwitschia* caused a sensation among European botanists.

This is a Tree

It may not look like one—which is not surprising, for it is one of nature's curiosities and is found only in Damara Land, Africa

When the seedling of the queerest tree first pokes its head above the dry and dusty soil of the almost rainless region in which it grows, it puts forth two seed leaves or cotyledons, not unlike those of a bean. As the young plant develops, two green leaves spring from the edges of the cotyledons. These two leaves are the only ones borne by the plant throughout its century of existence. Flat and leathery, six feet long and two or three feet wide when fully developed, they hang from either side of the stubby trunk in gracefully curving green streamers. In later years they split along straight lines into a number of narrow strips. The illustration shows a young plant in the London Botanical Gardens, said to be the only one in Europe. It is from fifteen to twenty years old.

The *Welwitschia mirabilis* is the only species of its kind; it belongs to the great evergreen family. When old enough to bear fruit, double-branched flower stalks, nearly a foot high, spring from the edges of the seed leaves, bearing small erect cones colored a brilliant scarlet. Between the scales of the cones are very small flowers which in due time bear seeds. The ripe cone is oblong and about the size of that borne by spruce trees.

The greater part of the queerest tree's trunk is below ground. It is about two feet long when full grown. A stout taproot, which branches at the bottom, extends downward into the earth, giving the plant a tremendous hold. The wood of the trunk is extremely tough; it is practically impossible to cut or saw it. It can be split along the grain if great force is exerted.

The top of the trunk is formed by the woody mass of the two central cotyledons. When fully grown, it is often fourteen feet in circumference. The surface is rough and rugged, being, according to the distinguished English botanist Dr. Hooker, "dark brown, hard, and cracked over the whole surface, much like the burnt crust of a loaf of bread."

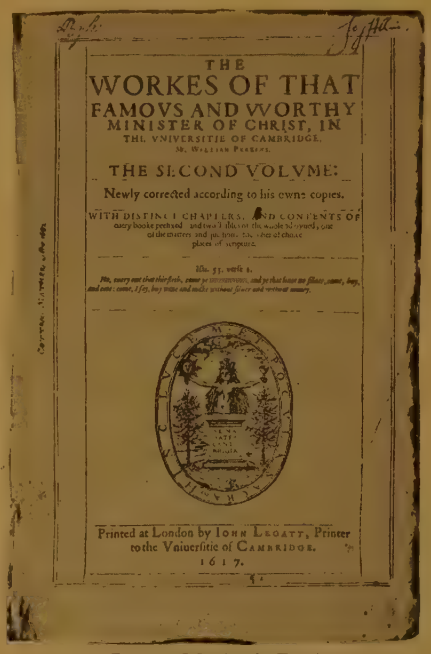
Damara Land, where the queerest tree grows, is in the central portion of what was formerly German Southwest Africa. Two distinct tribes inhabit it—the Hill Damara and the Cattle Damara. Although they share the same name, they are of different origin and speak different languages. The Hill Damara are Negroes with much Hottentot blood in their veins, while the Cattle Damara, who live on the plains and raise cattle, are a Bantu-Negro people. Damara is a Hottentot word meaning "Two Dama Women." The Damara call themselves Ovaherero, "the Merry People." *May Tevis.*

RARE-BOOK TREASURES FOR $1.25

MY DEAR MR. MOFFAT: In reading the March Mentor, I find mention in Mr. Maurice's article of books I had purchased. I am the Yale undergraduate whom he mentions as having paid $1.25 for books worth $3,000.00. It occurred to me that it might interest book collectors to know the story that goes with that purchase, so I send it to you herewith.

Sincerely yours, (Signed) MARK H. HAIGHT.

FOR three years I have been a steady collector of books, and chance has favored me with a number of fine purchases for low sums. It was in my senior year at Taft School, Watertown, Connecticut, that I came upon my greatest "find." In October there was an auction in Woodbury, Connecticut, and on a list of household goods offered at public sale, there appeared at the bottom the line, "And a number of old books." At the sale, I saw three boxes in which there was one item worth while—a set of books which I took without hesitation—and as a result I had, within three minutes of my arrival, a first edition of Washington Irving's "Life of George Washington," in original board binding, *for 25 cents.*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1617.

Cotton Mather's Book

One of the valuable books bought for a small sum in an antique shop

As I was going out, I was greeted at the door by a stately, elderly gentleman who had seen me buy the books. He presented me with his card, and I found him to be a dealer in antiques, of Waterbury, Connecticut. I had no interest in antiques, but the gentleman told me he had several thousand old books in his shop. My heart leaped at the prospect of another "find"—my mind "registered" expectation.

At five o'clock the following day I was in the antique shop at Waterbury, wading through piles of books. On the floor before me I saw three large folio volumes.

"What are those?" I asked the dealer in antiques, pointing to the three books.

Without informing me, the old gentleman said, "I'll let you have them for $1.25."

I bought them without knowing what they were, simply because their age attracted me. When I was again in my room at school, I examined them and, to my surprise, found on the title page "Cottoni Matheri, liber 1682." I found the volumes to be collected sermons of "that famous and worthy Minister of Christ in the University of Cambridge, Mr. William Perkins, 1617."

On the margins of many pages were notes in the supposed neat writing of Cotton Mather. On the title page of Volume I appeared the names of Mather Byles and Sir John Maynard, the former a minister and native of Boston, to whom the Pope presented a copy of the "Odyssey;" the latter, sergeant to Oliver Cromwell, Richard Cromwell, and Charles II. The notes that do not appear in the hand of Cotton Mather are in the supposed writing of Sir John himself.

This seemed too wonderful to be true. I carried the three large volumes up to the room of Mr. C. H. Ward, the head of our English department. He thought the writing suspiciously like Cotton Mather's. Since then, I have seen a Mather manuscript in a bookshop of New York, and the writing corresponds to that in my volumes.

At the beginning of last fall I arrived at New Haven as a freshman. The news of my books had preceded me, for people came to see the collection, and many offered me handsome prices for some of the books. Often the temptation to yield to these offers has come to me, but I always lay to heart the words of Professor Chauncey B. Tinker when he heard that I might succumb to temptation:

"Those volumes should be the corner stone of your library, to be handed down to your grandchildren, with their story."

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Mr. Seton is universally beloved because he has the unusual gift of doing three things at once: he entertains, diverts, and instructs. And in addition he is a most engaging artist. His pen pictures run all through his books. These are as quaint and full-flavored with the outdoors, as are his word pictures. The newest book from Mr. Seton's magic pen is included in this set—WOODLAND TALES—this volume alone has 100 drawings by the author. TWO LITTLE SAVAGES has 300 drawings. The others all have half-tone engravings and pen-and-ink drawings of every outdoor subject from grizzly bears to Indian wigwams.

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for a surprisingly short while—and you can converse in a foreign tongue. The Rosenthal Method makes this possible. Only a trained musician can learn a tune without hearing it—by merely looking at the printed notes. But anyone can learn a tune by listening to it several times. So with languages. The Rosenthal Language Phone Method enables *anyone* to learn a foreign tongue as easily as a new tune.

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Studying foreign languages by the Rosenthal Language Phone Method, can be made a social recreation. Many families and groups of friends make a game of it. It is not a selfish and isolating pastime—but one that can be shared and enjoyed by any number. It is a case of "the more, the merrier"—and the quicker, too, for there is the spur to emulation.

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Does your English reveal your lack of education or does it prove that you are a person of culture and refinement? Are you handicapped in your speech and writing or does your command of English rise to meet every occasion and every situation? English is the one weapon you must use every day. Here is how you can improve it almost at once.

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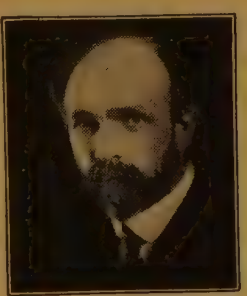

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Why be run-down, emaciated, half alive? The "Daily Dozen" quickly builds you up.

Try the "Daily Dozen" To Music!

Ten Minutes' Fun a Day Gives You Health, Strength and Vitality—Free Record Proves It.

A GREAT and new idea—and more fun than a game! You cannot appreciate the fascination, the glow of health, the amount of "pep" you acquire from exercising to music until you have tried it!

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Increase your wind, develop your chest, strengthen your powers of endurance and your energy to work. Put on muscular shoulders, acquire strong stomach muscles, get a wonderful and superb physique — and enjoy yourself every minute you are doing it.

The "Daily Dozen" are set to music on large double-disc records, playable on any disc machine. In addition there are charts with 60 actual photographs illustrating every movement with clear and simple directions. On the record itself a clear voice gives you the commands, telling you exactly what to do. All you do is put a record on the machine. Inside of ten minutes you will feel a glow that is priceless in its benefits to your health. You can say good-bye to constipation, headaches, backaches, insomnia, run-down condition, nervousness, emaciation, want of appetite and that tired, exhausted feeling.

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There is no obligation. The record is yours to keep. Just enclose a quarter (or 25 cents in stamps) with the coupon, to cover charge of postage, wrapping, etc., to Health Builders, Dept. 726, Oyster Bay, N. Y.

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(Please write plainly)

Address.....

Are Americans as well read as Europeans?

There have been many theories and much discussion about this matter; here are some striking facts:

ONE often hears travellers assert that the average European is more cultured and more widely read than the average American; that the American seems to prefer lurid fiction, sensational newspapers. Is this really true?

No doubt this impression has been created by the fact that in Europe all of the great classics of literature can be obtained in very low-priced editions, and have always been sold by the hundreds of thousands. This has never been true in this country—until within the last few years.

Yet, like magazines or newspapers, it has always been possible to produce well-bound and well-printed books for a small sum, if someone dared to risk printing in enormous editions. But no one has ever dared to risk this. A few years ago, however, a group of young men decided to rush in where more cautious publishers had always feared to tread.

How a faith was justified

These young men elected to publish many of the greatest masterpieces of the world's literature. The editions of these books ran as high as 1,000,000 volumes at a time, and, because of the resulting economies, were offered to the public at a price that even the poorest could afford. Was this faith in the literary taste of the American public justified? Would Americans really buy the best books in such unheard-of quantities?

The answer is "YES"—and we hope it rings loud enough to give an everlasting lie to the intellectual snobs who are always bewailing the fact that America is a land of "Main Street yokels," that we are essentially an illiterate people and that we have no taste for the best in literature.

The sale of Little Leather Library volumes—for that is the name of the series referred to—has been almost beyond belief. *In the last eighteen months alone, over TEN MILLION of these books have been purchased.* And what were these "best sellers" that the American public craved so intensely? They were the best works of—Shakespeare, Browning, Burns, Coleridge, Macaulay, Tennyson, Longfellow, de Maupassant, Wilde, Poe, Emerson, Thoreau, Lincoln, Stevenson, and other similarly great masters!

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What some people guessed

The publishers are still offering to sell *thirty* of these great works for the sum of $2.98. The illustration above shows the set in reduced size. They are books that no one cares to confess he has not read and re-read. They are complete as written, every one of them. This is not that abomination, a collection of "extracts." Their beauty and character you may judge from this fact: A large number of booklovers who were shown a sample, without being told what the price was, *estimated that this set of thirty books was worth from* $50 *to* $100. These estimates are on file for the inspection of anyone interested.

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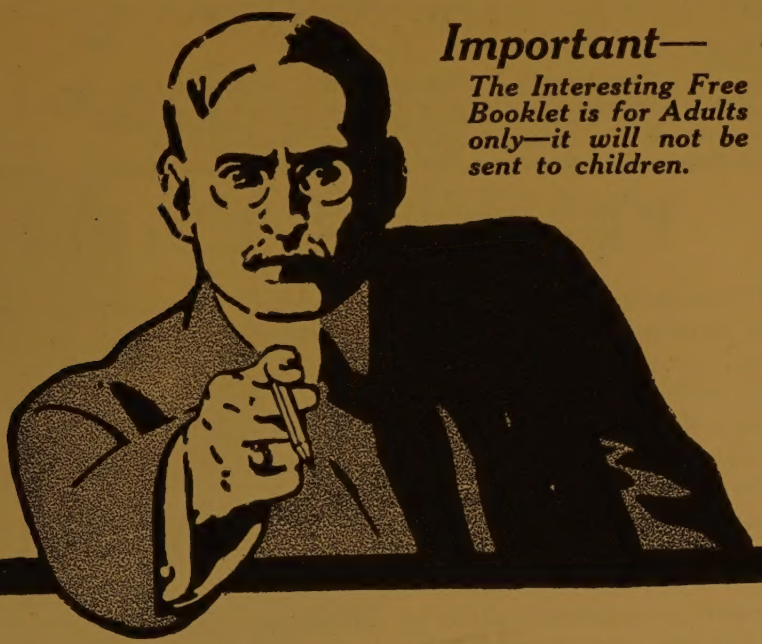

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The Open Letter

THE hunger for self-improvement feeds on every new-thought movement and leads one to the shrine of each new-thought prophet. The greatest of all our modern soul doctors is that distinguished delver in the subconscious self—Freud. He tells us what is the matter with us deep down underneath the conscious, everyday, practical self—but he does not tell us just what to do to correct the errors and perversions that are the outcropping of conditions rooted in the subconscious soil.

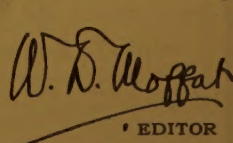
Freud, like Charles Darwin, is an investigator and a collector of facts, and, also like Darwin, he has suffered at the hands of over-zealous disciples who have misdirected and misapplied his investigations. There must be a great deal of careful experimentation by intelligent, conscientious Freudian students of the inner mysteries of personality before we shall feel that we are in safe hands.

One of the latest of the apostles of the subconscious self is Emile Coue, an eminent French psychologist who has set Paris and London a-going with a magic formula, "*Day by day, in every way, I am growing better.*" Mr. Coue tells how Dr. Jekyll can cure Mr. Hyde in us by auto-suggestion, imagination, and the exercise of the will. He shows us how to cure ourselves. "In each of us," he says, "there are two beings, the conscious and the subconscious. The first represents the will, the second the imagination. The first we know about, the second is a mystery. Learn to develop the subconscious, and you are on the way to a happier, healthier life."

Mr. Coue, we read in the press, has wrought many cures by telling his patients that they must say "Day by day" twenty times at bedtime, and upon rising, and at other times when necessary.

But we also read that he tried his system on a hospital full of shell-shocked patients in London, and created a hysterical panic. Well, perhaps that simply proves that the Coue treatment was not the right one for those poor, soul-wracked patients.

It seems to me, however, that Mr. Coue is playing with fire—without using it. On the altar of his psychic shrine no flame of *purpose* burns. Why does not his creed proclaim, "Day by day, in every way, I *shall* grow better"? No expression of spiritual outreaching, no matter how exalted in tone, can have much effect on one's character and conduct unless it sounds a note of firm resolution and high endeavor.



SPECIAL EDITORIAL NOTE—Owing to the very large number of papers submitted in the Prize Questionnaire Competition, it has been impossible to complete the examination in time to print the names of prize winners and the answers in this number. They will appear in next month's issue.

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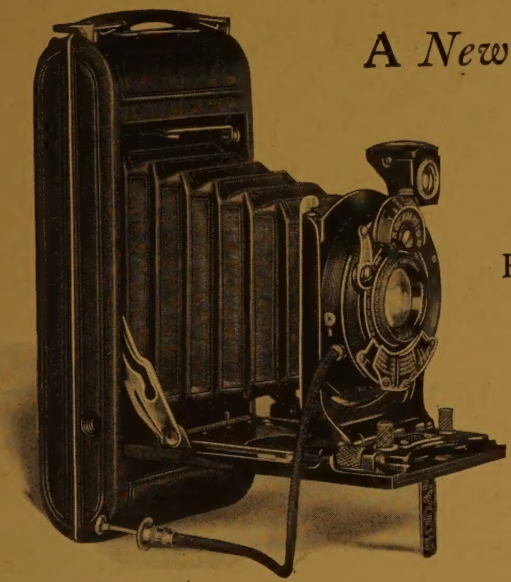

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